

GENERAL INFORMATION		
Course name	Forensic Medicine	
Course director	Assoc. Prof. Milanka Mrčela, MD, PhD	
Assistants	Assoc. Prof. Ksenija Marjanović, MD, PhD Asst. Prof. Boris Dumenčić, MD, PhD Asst. Prof. Jasmina Rajc, MD, PhD	
Study program	Integrated undergraduate and graduate university study program Medical Studies in German	
Course status	Mandatory	
Year of study, semester	6 th year, 12 th semester	
Credits allocated and form of instruction	ECTS student workload	4
	Number of teaching hours (L+S+E)	50 (30+10+10)
COURSE DESCRIPTION		
Course objectives		
<p>Forensic medicine is a course which links medical and legal science and which thematically includes thanatology, damage to health, identification, and expert evaluation in accordance with the Criminal Procedure Act as well as medical deontology. All the listed topics are included in the following teaching units: Forensic autopsy, reasons for indication. Identification. Basics of ballistics. Pathology of road traffic injuries. Asphyxiation; suffocation, neck compressions. Thermal injuries; death by burning. Sexual violence and rape. Injuries with sharp and pointed tools. Abortion and pregnancy-related deaths. Medical practice and criminal offenses. Taking material for toxicological analysis. Forensic aspects of alcohol. Thanatology; pathophysiology of death. Exhumation; indications. Pathology of gunshot wounds. Regional injuries; head and neck, chest, abdomen. Drowning. Electric shock. Abuse of children, arrested, detained. Deaths related to diagnostic and therapeutic procedures. Drug and hallucinogen intoxication. Deaths due to drug use. Going to the place of death, signs of death, time of death, forensic autopsy. Death report, death certificate, burial permit, medical documentation. Establishing identity; DNA analysis, paternity, maternity. Blast injuries, terrorism. Assessment of the severity of physical injuries. Qualification in accordance with the Criminal Code of the Republic of Croatia. Accidents, suicides, murders, forensic autopsy. Overview of victims of sexual violence and rape; taking evidence.</p>		
Course requirements		
There are no specific requirements for this course except those defined in the study program curriculum.		
Learning outcomes at the Programme level		
1.1., 1.2., 2.1., 2.2., 2.3., 3.2., 3.4., 4.1., 4.2.		
Expected learning outcomes (5-10 learning outcomes)		
Knowledge		
<ol style="list-style-type: none"> 1. Define and classify death and its manifestations 2. Define the underlying cause of death, the pathophysiological mechanism of death and the manner of death (natural, violent) 3. Define unknown cause of death, death in unclear circumstances, sudden infant death syndrome 4. State in which cases a forensic autopsy shall be performed 5. Differentiate types of mechanical injuries and principles of determining the age of injuries 6. Understand the principles of determining the severity of physical injuries according to the criteria of the Criminal Code of the Republic of Croatia 		

7. Understand the procedure for taking biological traces from victims and perpetrators of physical and sexual violence
8. Describe, understand and compare the results of toxicological analyses with clinical and autopsy findings
9. Differentiate the essence of criminal offenses in the field of medical deontology

Skills

1. Do an external examination of a dead body
2. Differentiate early and late postmortem changes and signs of death
3. Define the most probable time of death based on postmortem changes
4. Fill out medical documentation related to the fact of the death report

Course content

Place of death, examination of the body, coroner's office and forensic autopsy. Thanatology, signs of death, pathophysiology of death, time of death. Mechanical injuries due to the action of blunt force or sharp and pointed tools. Basics of ballistics, ammunition, firearms, explosives. Pathology of gunshot wounds. Gunshot wounds. Blast injuries. Pathology of trauma in road, rail and air transport. Thermal injuries, burns, injuries caused by hot liquids, steam. Death by burning. Carbon monoxide, cyanide intoxication. Asphyxia, mechanical asphyxia, suffocation, strangulation, traumatic and positional asphyxia. Abuse of children, the elderly and the infirm. Sexual violence and rape. Death in custody and prison. Pathology of sudden death. Pregnancy and sudden death. Death during surgery. Medical practice and criminal offenses. Medical negligence. Physical injuries: electric shock, lightning strike, radiation injuries. Hypothermia and hyperthermia. Infanticide. Illegal termination of pregnancy. Illegal abortion, complications and sudden death. Trauma, injury complications. Pulmonary, fat, air embolism, respiratory distress, disseminated intravascular coagulation. Biological traces. DNA analysis. Forensic toxicology. Taking samples for toxicological analysis. Drug addiction, drug intoxication. Death due to drug use. Forensic aspects of alcohol. Taking blood and urine samples for analysis. Driving under the influence of alcohol. Medicines: overdose, intoxication. Pesticide and insecticide poisoning. Corrosive and heavy metals.

Form of instruction	<input checked="" type="checkbox"/> lectures	<input type="checkbox"/> individual assignments
	<input checked="" type="checkbox"/> seminars and workshops	<input type="checkbox"/> multimedia and Internet
	<input checked="" type="checkbox"/> exercises	<input type="checkbox"/> laboratory
	<input type="checkbox"/> distance learning	<input type="checkbox"/> mentoring activities
	<input type="checkbox"/> field course	<input type="checkbox"/> other

Student obligations

Come to class prepared by studying the recommended literature for each unit and actively participate in all forms of instruction. The student must participate in at least 70% of classes to pass the course.

Monitoring student learning

Attendance	x	Active participation	x	Seminar paper		Experimental work	x
Written exam	x	Oral exam	x	Essay		Research	
Project		Continuous assessment		Paper		Practical work	x
Portfolio							

Assessment and evaluation of students during class and on the final exam

Students' performance will be evaluated during class and on the final exam. Students are evaluated numerically and descriptively (insufficient (1), sufficient (2), good (3), very good (4), excellent (5)). During classes, a student can earn a maximum of 100 points. Students can earn a maximum of 20 points during classes through different types of activities. On the final exam,

students can earn a maximum of 80 points. The final grade represents the sum of the points earned during classes and on the final exam.

Mandatory reading

1. Schütz D. Rechtsmedizin 2. Auflage. Springer-Lehrbuch: 2014

Additional reading

The number of copies of mandatory reading in proportion to the number of students currently taking this course

<i>Title</i>	<i>Number of copies</i>	<i>Number of students</i>
Schütz D. Rechtsmedizin 2. Auflage. Springer-Lehrbuch: 2014	A purchased license for online textbooks shall be used https://bfdproxy48.bfd-online.de/login.htm?back=http%3a%2f%2fpartner.bfd-online.info.bfdproxy48.bfd-online.de%2fameos%2fbfdAboGateway%3fabold%3d264117 Access will be granted to all students enrolled in the study program	

Quality monitoring methods ensuring the acquisition of knowledge upon completion, skills and competences

The quality of course performance is monitored through an anonymous student survey on the quality of the organization and conduction of classes, the course content and the work of professors. The usefulness of the lectures from the students' perspective, the curriculum content, the professor preparedness, the clarity of the presentation, the amount of new content and the quality of the presentation are evaluated. The curriculum and its execution are administratively compared. The participation of students in lectures and exercises, as well as the excuses for missing classes, are controlled and analyzed.